



# DIS474

## THERMOCOUPLE INPUT PROCESS INDICATOR

### FEATURES

- Provides 3½ Digit Display Calibrated in Temperature
- °C/°F Switch
- Linearized for All Standard Thermocouple Types
- Cold Junction Compensated
- 0.1 Degree Resolution Available (T/C Types J, K, T, E & N)
- Plug-In Card Changes T/C Type & Range
- Fits Standard 1/8 DIN Cutout
- Rated NEMA-4, Splashproof when Properly Installed
- 5 Year Warranty

### DESCRIPTION

The DIS474 displays temperature as measured by a thermocouple input. All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. The digital display utilizes an auto-zero dual-slope integrating A/D converter for accuracy and stability.

A unique analog thermocouple circuit with digital linearity compensation provides the optimum combination of resolution and thermocouple linearization.

Linearization is better than  $\pm 1^\circ\text{C}$  from  $-200^\circ\text{C}$  ( $-328^\circ\text{F}$ ) to the thermocouple's upper limit on all ranges.  $0.1^\circ\text{C}/0.1^\circ\text{F}$  resolution is available for thermocouple types J, K, T, E and N ( $-199.9$  to  $+199.9^\circ\text{C}/^\circ\text{F}$ ). A temperature-sensing I.C. potted inside the input connector provides optimum cold-junction compensation.

All DIS instruments are gasketed and, when properly installed, are NEMA-4 splashproof. ZERO and SPAN controls are accessible by removing a gasketed front access panel.

A plug-in range card, accessible without opening the case, permits user recalibration for all thermocouple types and ranges. °C or °F is selected using switches accessible from the rear. A rear-panel jumper selects upscale or downscale burnout indication.

A complete set of engineering unit labels is sent with each DIS. Terminations are made to a screw terminal connector on the rear of the case.

### TYPICAL APPLICATIONS

Temperature indication and monitoring.

### SPECIFICATIONS

#### INPUT RANGE

Wide

any standard thermocouple type, full temperature range above  $-200^\circ\text{C}$  ( $-328^\circ\text{F}$ ) to  $+1999^\circ\text{C}/^\circ\text{F}$

Narrow

$-199.9$  to  $+199.9^\circ\text{C}/^\circ\text{F}$   
types J, K, T, E and N

#### ACCURACY

Wide

$\pm(0.1\%$  of reading plus  $1^\circ\text{C}$  or  $2^\circ\text{F}$ )  
(Includes T/C linearization)

Narrow

$\pm 0.5^\circ\text{C}$  or  $0.9^\circ\text{F}$

#### BURNOUT INDICATION

jumper selectable  
upscale/downscale

#### COMMON MODE REJECTION

120 dB, DC to 60 Hz

#### ISOLATION

Input-to-Line Breakdown Voltage  
1500 VAC rms

#### DISPLAY

Digit Size  
.56" LED, 3½ digits,  
 $\pm 1999^\circ\text{C}/^\circ\text{F}$   
switch selectable

Update Rate  
3/sec

#### OPERATING TEMPERATURE

$14^\circ\text{F}$  to  $140^\circ\text{F}/-10^\circ\text{C}$  to  $60^\circ\text{C}$

#### TEMPERATURE STABILITY

$\pm 0.02\%$  of span/ $^\circ\text{C}$  MAX

#### POWER

$115\text{ VAC} \pm 10\%$ , 50 or 60 Hz  
(4 W max)  
 $230\text{ VAC} \pm 10\%$ , 50 or 60 Hz  
(4 W max)

**ORDERING INFORMATION**

**POWER**

- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power

**INPUT**

**Select Units**

- Deg C    Deg F

**Enter Input**

Zero Scale

Full Scale

**Select Sensor**

- J TC
- K TC
- R TC
- S TC
- T TC
- E TC
- N TC
- B TC
- Other - Specify Notes

**DISPLAY**

**Enter Display**

Zero Scale

Full Scale

**Select Display Logic**

- Normal Acting
- Reverse Acting

**OPTIONS**

- Conformal Coating

**TAGS**

**Specify Tag Numbers**

Tag number is typed on product label at no charge.

**Enter Tag Number(s)**

**ACCESSORIES**

**DIS474**

DIS-CARD 474 Range Card for DIS474 Thermocouple Process Indicator

QTY \_\_\_\_\_

**INPUT**

**Select Units**

- Deg C    Deg F

**Enter Input**

Zero Scale

Full Scale

**Select Sensor**

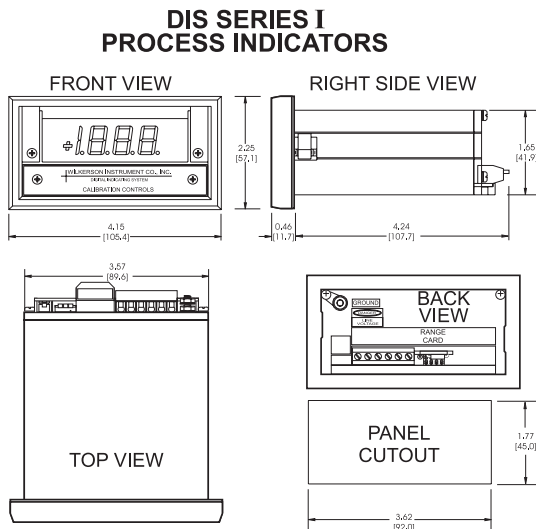
- J TC    E TC
- K TC    N TC
- R TC    B TC
- S TC    Other - Specify Notes
- T TC

**MOUNTING**

The DIS is designed to be mounted from the front of the panel through a standard horizontal 3.62 x 1.77 inches (1/8 DIN) cutout. Two mounting cam-screws allow the securing of the DIS to the panel from the front.

**DIMENSIONS**

Inches [mm]



**CONNECTIONS**

- TERM 1      Power AC L1
- TERM 2      Power AC L2
- TERM 3      Shield (Common)
- TERM 4      T/C -
- TERM 5      T/C -



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